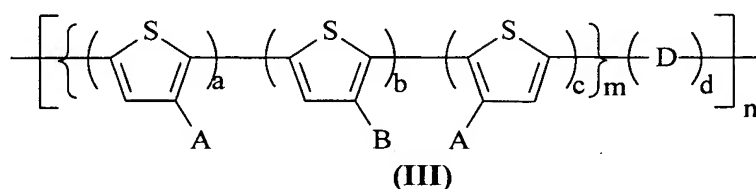


**CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**LISTING OF CLAIMS:**

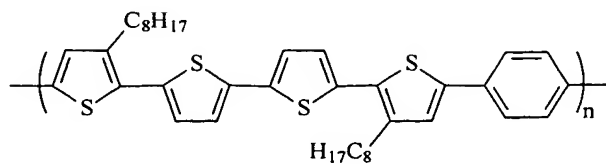
1. **(Previously Presented)** A symmetrical polythiophene



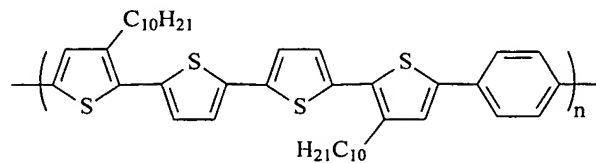
wherein A is a side chain; B is hydrogen or a side chain; D is a divalent linkage; a and c represent the number of A-substituted thienylenes; b is the number of B-substituted thienylene segments; d is 0 or 1; and n represents the degree of polymerization, and wherein A is alkyl, and said B side chain is alkyl.

2. **(Cancelled)**

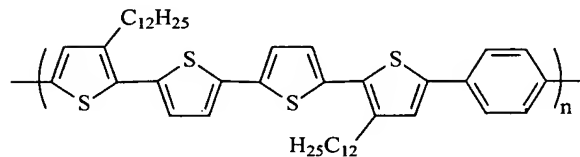
3. **(Original)** A polythiophene represented by



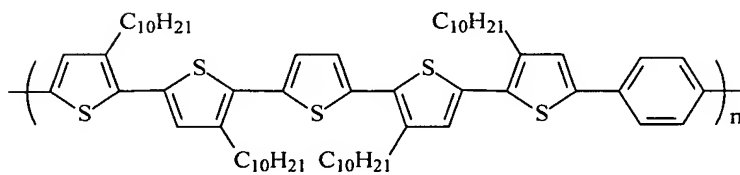
(1)



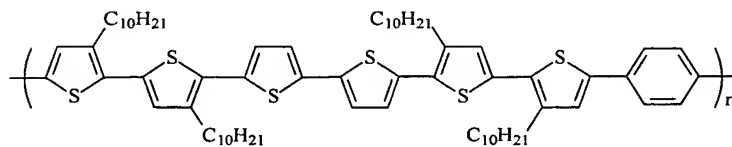
(2)



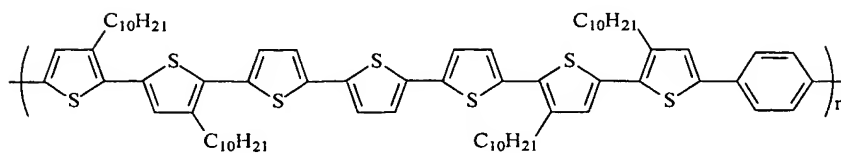
(3)



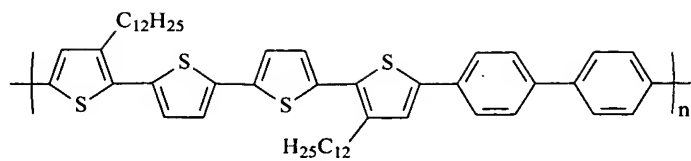
(4)



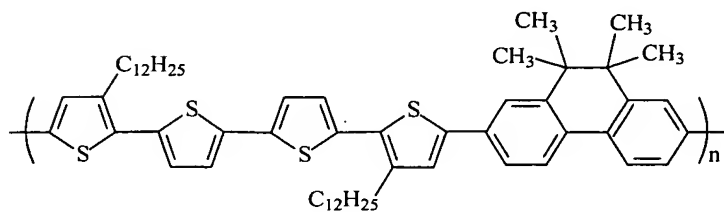
(5)



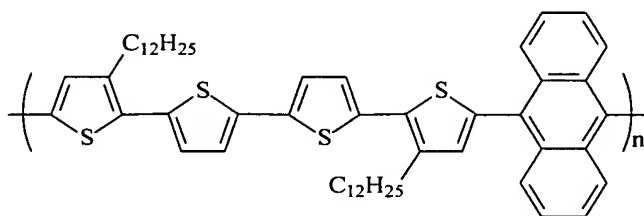
(6)



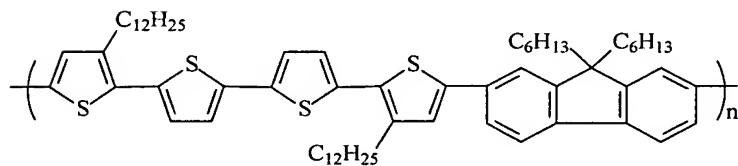
(7)



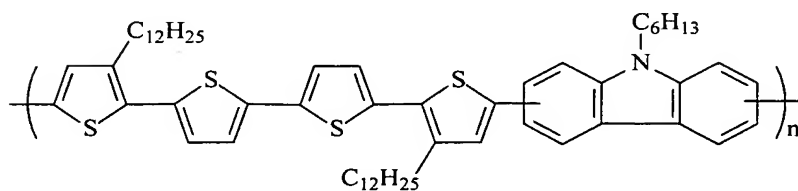
(8)



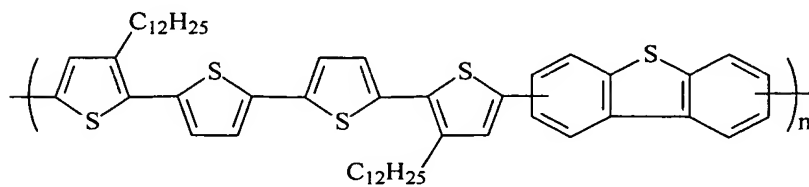
(9)



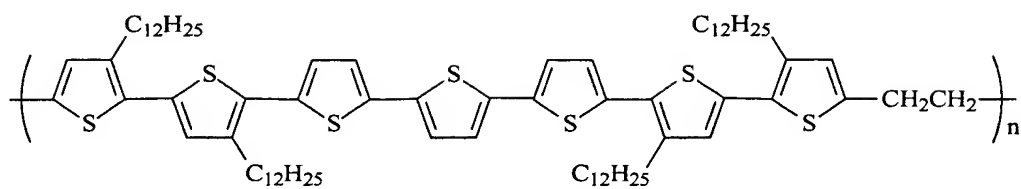
(10)



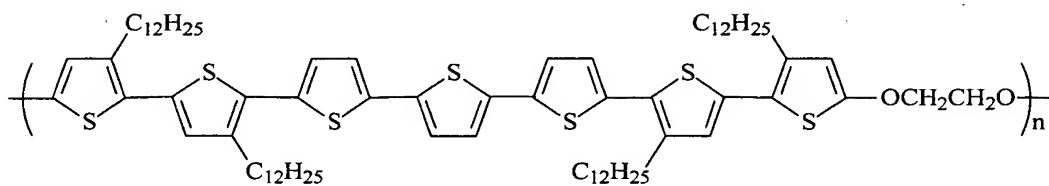
(11)



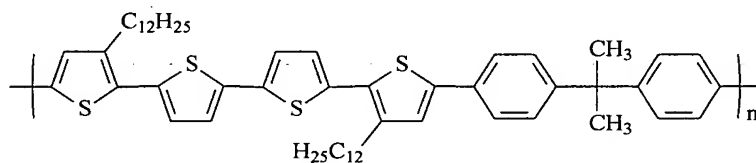
(12)



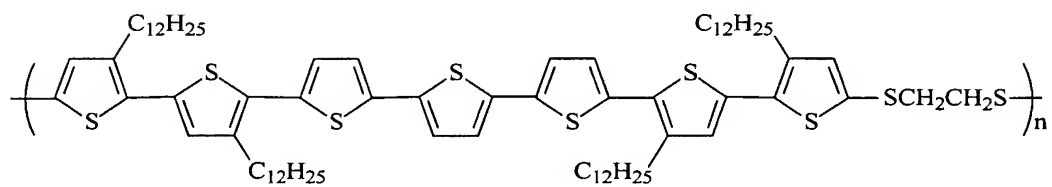
(13)



(14)

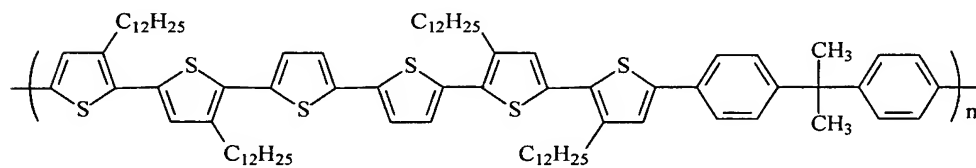


(15)



(16)

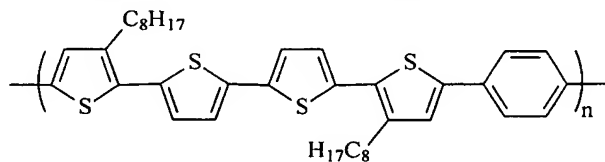
or



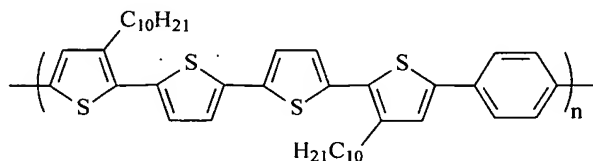
(17)

and wherein n represents the number of segments.

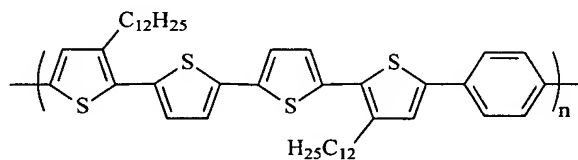
4. **(Original)** A polythiophene in accordance with **claim 1** wherein said polythiophene is represented by the following formulas



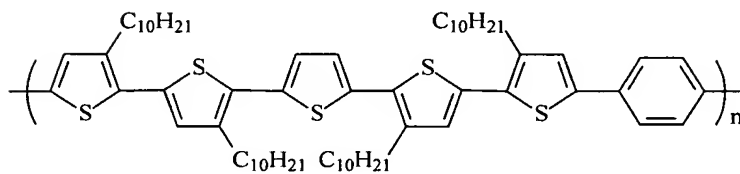
(1)



(2)



(3)



(4)

5. **(Cancelled)**

6. **(Original)** A polythiophene in accordance with **claim 1** wherein A is alkyl containing from about 1 to about 25 carbon atoms, and B is alkyl containing from 0 to about 4 carbon atoms.

7. **(Original)** A polythiophene in accordance with **claim 6** wherein A contains from about 5 to about 25 carbon atoms, and B contains from 0 to about 4 carbon atoms.

8.     **(Original)** A polythiophene in accordance with **claim 1** wherein a is from about 1 to about 7.
9.     **(Original)** A polythiophene in accordance with **claim 1** wherein b is from about 1 to about 7.
10.    **(Original)** A polythiophene in accordance with **claim 1** wherein d is zero.
11.    **(Original)** A polythiophene in accordance with **claim 1** wherein d is 1.
12.    **(Original)** A polythiophene in accordance with **claim 1** wherein n is from about 5 to about 5,000.
13.    **(Original)** A polythiophene in accordance with **claim 1** wherein n is from about 5 to about 3,000.
14.    **(Original)** A polythiophene in accordance with **claim 1** wherein n is from about 10 to about 1,000.
15.    **(Original)** A polythiophene in accordance with **claim 1** wherein A is alkyl containing from about 6 to about 25 carbon atoms; B is hydrogen or alkyl containing from 1 to about 3 carbon atoms; D is arylene or dioxyarene, each containing from about 6 to about 40 carbon atoms, or alkylene or dioxyalkane, each containing from about 1 to about 20 carbon atoms.
16.    **(Original)** A polythiophene in accordance with **claim 1** wherein A is alkyl containing from about 8 to about 12 carbon atoms, and B is a hydrogen atom.

17. **(Original)** A polythiophene in accordance with **claim 1** wherein A is alkyl containing from 5 to about 15 carbon atoms; B is a hydrogen atom; D is arylene; a, b, c, and m are independently selected from the numbers 1, 2, and 3; and d = 1.

18. **(Original)** A polythiophene in accordance with **claim 1** wherein A is alkyl containing from about 8 to about 12 carbon atoms; B is a hydrogen atom; D is arylene; a = c = m = 1; b = 2; and d = 1.

19. **(Original)** A polythiophene in accordance with **claim 1** wherein n is from about 5 to about 5,000.

20. **(Original)** A polythiophene in accordance with **claim 1** wherein the number average molecular weight ( $M_n$ ) of (III) is from about 10,000 to about 30,000, and the weight average molecular weight ( $M_w$ ) is from about 15,000 to about 100,000.

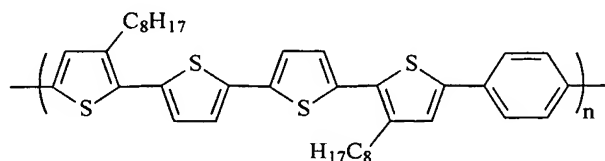
21. **(Original)** A polythiophene in accordance with **claim 1** wherein the number average molecular weight ( $M_n$ ) of (III) is from about 2,000 to about 100,000, and wherein the weight average molecular weight ( $M_w$ ) is from about 4,000 to about 500,000, each as measured by gel permeation chromatography using polystyrene standards.

22. **(Original)** A polythiophene in accordance with **claim 1** wherein A is hexyl heptyl, octyl, nonyl, decyl, undecyl, dodecyl, tridecyl, tetradecyl, or pentyldecyl.

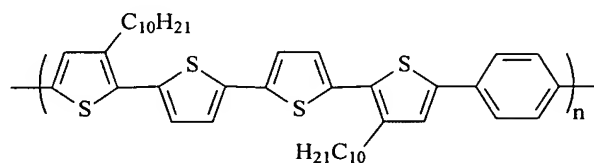
23. **(Original)** A polythiophene in accordance with **claim 1** wherein D is an arylene selected from the group consisting of phenylene, tolylene, xylylene, biphenylene, substituted biphenylene, fluorenylene, phenanthrenylene, dihydrophenanthrenylene, dibenzofuranediyl, dibenzothiophenediyl, and carbazole-diyl.

24. **(Original)** A polythiophene in accordance with **claim 1** wherein D is saturated linkage selected from the group consisting of alkylene, dioxyalkane, dioxyarene, and oligoethylene oxide.

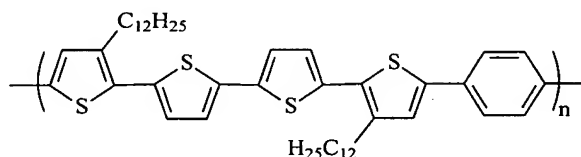
25. **(Original)** A polythiophene in accordance with **claim 1** wherein said polythiophene is represented by or encompassed by the following formulas, and wherein n represents the number of repeating segments, and is a number of from about 5 to about 4,000



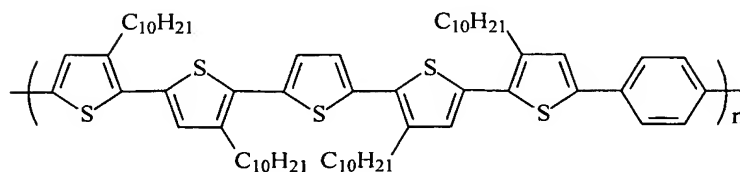
(1)



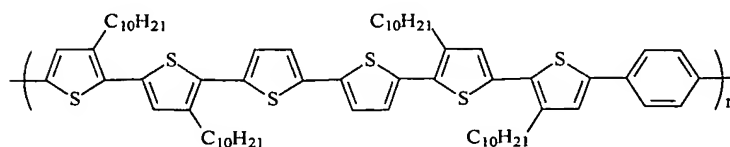
(2)



(3)

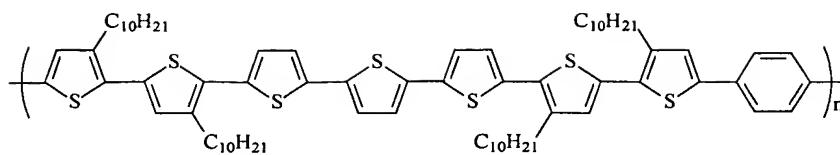


(4)

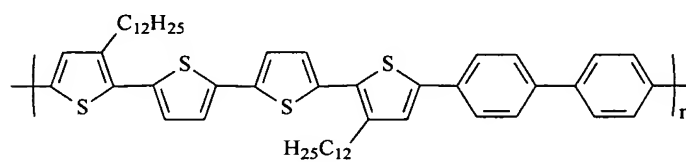


(5)

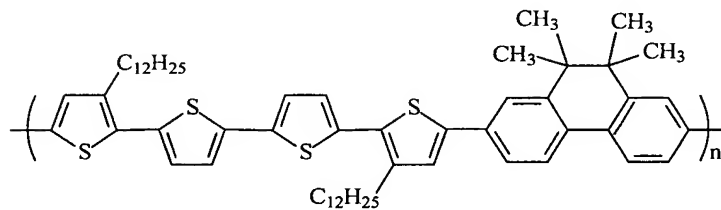




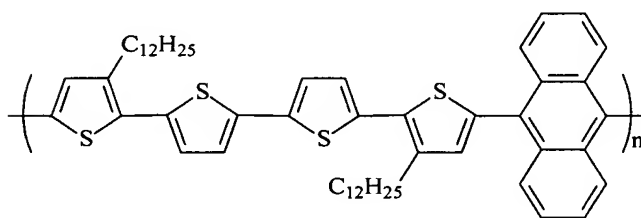
(6)



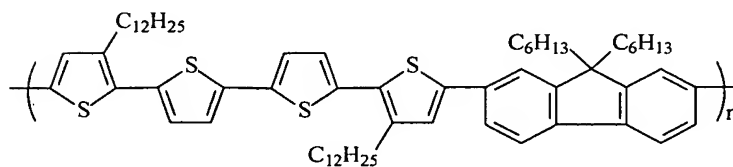
(7)



(8)

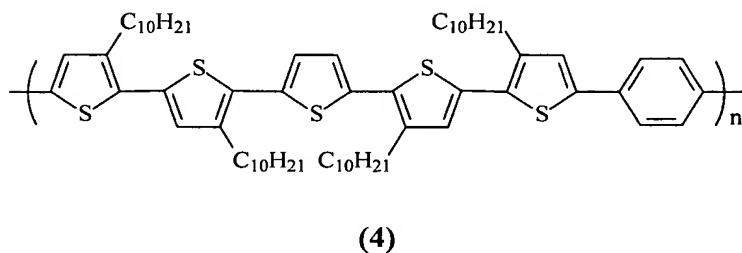
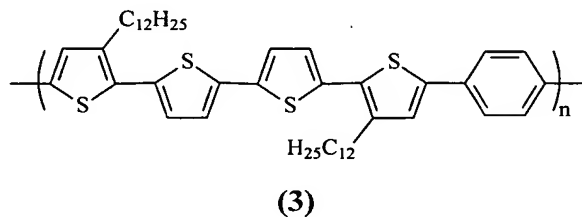
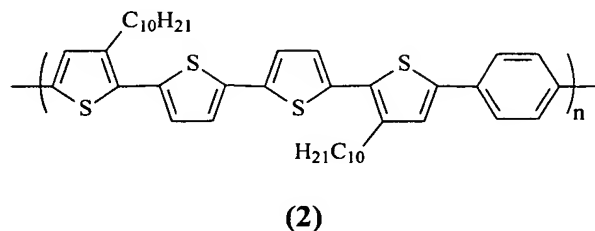


(9)



(10)

26. **(Original)** A polythiophene in accordance with **claim 1** wherein said polythiophene is



27. **(Cancelled)**

28. **(Cancelled)**

29. **(New)** A polythiophene in accordance with **claim 1** wherein A contains from 5 to about 25 carbon atoms; B contains from 1 to about 4 carbon atoms; said D is optionally comprised of a saturated moiety of alkylene, -O-R-O-, -S-R-S-, -NH-R-NH-, wherein R is alkylene or arylene, or an unsaturated moiety of arylene or heteroaromatics; a is from about 1 to about 8; b is from 1 to about 6; and c is from 1 to about 8.